Appendix C

Primary Multi-Service Pilot Training at NAS Corpus Christi, TX using T-34C and T-6B Devices.

1.0 GENERAL.

1.1 <u>Training Site.</u> Appendix C specifies the requirements for the T-34C and T-6B Primary Multi-Service Pilot Training at NAS Corpus Christi, TX. T-34C and T-6B training will be provided to Naval flight students, U.S. military personnel, foreign military personnel, Government personnel, Civilian Contract Pilots and Military Instructor Pilots as required.

1.2 Training devices to be utilized for instruction are:

- 1.2.1 Device 2B37C Instrument Flight Trainer (IFT) The 2B37C is an IFT consisting of a single student position as a replica of the T-34C cockpit including consoles, flight controls, canopy and seat. A separate instructor station is provided with the capability of implementing the training flights, inserting malfunctions, monitoring the trainee, and evaluating his performance. The instructor may insert barometric pressure, altitude, wind and temperature changes as well as a full spectrum of systems failures and emergencies. The console is configured to permit the instructor to insert single engine turboprop and aircraft aural cueing common to the cockpit from start to shutdown. Flight controls include the following: stick, rudders, throttle quadrant, trim tabs, landing gear, and flap controls that are dynamic and adjustable in the same manner as the aircraft. The device is a fixed base installation mounted on a motion platform that provides pitch and roll motion in conjunction with a digital computer complex with associated electromechanical equipment, control, monitoring, and measurement functions to permit simulation.
- 1.2.2 <u>Device 2H110</u> Pre-Flight Trainer (PFT) The 2H110 is a T-34C systems familiarization panel interactive display. The device is computer driven and is located in the T-34 Systems Course classrooms in building 1824. Contract Instructors (CIs) use it in the classroom to graphically depict and explain various complex systems found in the T-34C aircraft. It was designed to provide student pilots with aircraft familiarization, basic operation, and Naval Air Training and Operational Procedures Standardization (NATOPS) training on the cockpit/avionics, electrical/environmental, and engine/propeller subsystems. The trainer provides simulation of the subsystems to allow students to familiarize themselves with the normal operation of the systems as well as indications of malfunction conditions during operation.
- 1.2.3 <u>Device 2F207B</u> Unit Training Device (UTD) The 2F207 devices provide basic pilot and IUT training in T-6B cockpit familiarization, ground operations and both normal and emergency operating procedures. The devices consist of a trainee station, an instructor station, and a computer system.

<u>Device 2F208B</u> Operational Flight Trainer (OFT) - The 2F208 devices provide basic pilot and IUT training in T-6B cockpit familiarization, ground operations and both normal and emergency operating procedures. The OFT can demonstrate and introduce such tasks as visual overhead ("break") pattern procedures, simulated flame-out patterns, visual (day, dusk, night) approaches, visual

flight maneuvering, aerobatics, VFR low level, day and night formation, instrument navigation, transition to land, circling approach transitions and emergency procedures. The capability exists to introduce day and night taxiing, departure from controlled flight, and out of control recoveries. The OFT has a canopy structure that represents viewing obstructions in the aircraft.

1.2.4 Device Table.

Device Number	Device Type	# of Devices	Standard Mission Length	Brief/Debrief Times (hrs)	Instructor to student station ratio
2B37C	IFT	7	1.3	0.5/0.5	1/1
2F207B	UTD	3	1.3	0.5/0.5	1/1
2F208B	OFT	3	1.3	0.5/0.5	1/1
2Н110	PFT	2	As Req'd	N/A	1/1
N/A	PTT	5	2.0	N/A	1/20

Devices may be added and removed during the term of this task order.
* CI's will be required to use trainer embedded debrief systems.

- 1.3 Primary Systems Course Mediated Interactive Lecture Classrooms.
- 1.3.1 Typical Classroom Instructional Objectives. The objective of the classroom ground training is to provide the student with sufficient training to enable performance of the flight and emergency procedures that are taught/conducted in the follow-on stages of simulator flight training.
- 1.4 <u>Types of Classrooms.</u> There are three types of classrooms located at TRAWING 4. These classrooms are as follow: Advanced Electronic Classrooms (AECs), Mediated Interactive Lecture (MIL) classrooms, and Learning Resource Centers (LRCs). Classrooms are scheduled and assigned on a weekly basis by the Wing Training Department based on class size and media required.
- 1.4.1 Advanced Electronic Classrooms (AEC). An AEC contains a podium connected to an overhead projector so the instructor can perform the lesson(s). The podium is equipped with software that allows the instructor to interact directly with each student independently, in groups, or as an entire class. An AEC can function as an LRC when the classroom is not being utilized for lectures or otherwise occupied. There are five general use AEC configured classrooms and two special use AEC configured classrooms.

Bldg #	Room #	Student Capacity	Equipment	Availability (M-F)
1824	202 & 204	27	AEC	0700-1700
1824	114, 203 & 205	18	AEC	0700-1700
1824	118 & 119	9	AEC Special Purpose JMPS/PFPS	0700-1700

1.4.2 Mediated Interactive Lecture (MIL). A MIL classroom contains a podium connected to an overhead projector. The name for this type of classroom is an Electronic Classroom (EC). This classroom does not utilize computers at each student station and is used for mediated interactive lectures or lectures without electronic interface. TRAWING 4's MIL classrooms are available for students to use as quiet study areas when they are not otherwise in use. There are nine MIL configured classrooms.

Bldg #	Room #	Student Capacity	Equipment	Availability
1824	115, 207, 213, 217, & 218	9-24	MIL	0600-2200 (M-S)
1824	214 & 216	18	Special Purpose MIL T-34 & T-6 SYS (Only)	0600-2200 (M-S)
83	120 & 119	20	MIL	0600-2200 (M-S)

Learning Resource Centers (LRCs). LRCs are classrooms containing individual student stations where TRAWING 4 students and instructors access curriculum Computer Aided Instruction (CAI) lessons. These lessons are accessible to the student through Interactive Courseware (ICW). Instructor supervision within the LRC includes provision of answers to student's technical questions concerning their assigned lessons and assisting the students when technical problems arise within the student management system. The student management system launches the courseware and tracks the student's progress in an automated system known as Training Integration Management System (TIMS).

Bldg #	Room #	Student Stations	Equipment & Capability	Device Availability
1824	215	13	CAI units	0700 - 2200 (M-Sun)

NOTE: All classroom computers and LRC computers are connected and are part of Training Integration Management System (TIMS). CIS personnel functioning as classroom instructors and LRC monitors must be knowledgeable in the functionality of this system and be able to solve minor issues or direct students to the appropriate individual to resolve problems he or she may encounter.

1.4.3 Typical ICW/CAI Classroom Instruction. When the students arrive, the instructor shall verify the individuals present are actually identified in the Government electronic student management system (TIMS) as participants. Any student not listed on the electronic roster shall be entered at that time. Students listed but not present shall be reported to the GTO or his designee when noted. The student roster, CNATRA TIMS General Roster, shall be used to record both attendance and lesson/course completion. The instructor shall use the Government approved lesson plan and Instructor Guide to teach the course. Each instructor qualified to instruct this course shall have his/her own Instructor Guide. The Instructor Guide may be personalized as desired by making notes in the instructor activity column. The instructor shall conclude the lesson(s) with a quiz as appropriate to check for student understanding. At the end of each day's instruction, the instructor shall answer students' questions

to clarify any portion of the instruction that is not clear and ensure that each student was properly completed in TIMS for course modules completed that day. At the end of the course, the instructor shall administer an electronic on-line or Paper end-of-course examination as appropriate for the subject matter being examined. The instructor must insure that all grades are properly entered in TIMS and report course completion to the Wing Training office administrative assistant. The instructor shall use a copy of the TIMS General Roster as a backup record for the course final grades. The Instructor shall ensure student course critique sheets or on-line critiques are completed and forwarded to the Wing GTO.

- $1.5 \ \underline{\text{Curriculum.}}$ The following CNATRA instructions are required for T-34C and T-6B training at NAS Corpus Christi:
 - a. 1542.140 Series Primary Multi-Service Pilot Training System
 - b. 1542.61 Series Primary Flight Instructor Curriculum
 - c. 1542.166 Series Primary Multi Service Pilot Training System
 - d. 1542.165 Series Primary Multi Service Training System

1.6 CIS Schedule / Primary Responsibility Parameters.

Note: For the Corpus Christi site, one stepladder (a single task under a single CLIN) will be used for the two curricula described in Appendices C (Primary) and D (Advanced). This shared HPW "pool" supports the flexibility required for efficient Pilot training throughput. Using the 1410 HPW stepladder (HPW Table below showing 1055/355 HPW splits between curricula), the sharing will work as described, treated on a weekly basis only and using whole hours only (round up):

- a. Case 1, maximum Primary HPW: Primary curriculum (App. C) can schedule its HPW split of 1055 hours plus can add for the week up to 20% of the other curriculum (from Advanced (App. D) 355x20%=71 hours for a maximum of (1055+71=) 1126 hours for that week, leaving Advanced at (355-71=) 284. These adjusted HPW splits (1126/284) are treated as the authorized HPW for that week on the two appendices (scheduled work) and daily maximum scheduling rules apply.
- b. Case 2, minimum Primary HPW: 1055 minus for the week up to 20% of the other curriculum (71 hours) for a minimum HPW split of 984, leaving Advanced at 426.

These 2 cases define the boundaries: For the 1410 HPW stepladder, Primary (App. C) can have any weekly HPW between 984 and 1126, Advanced (App. D) between 284 and 426. The weekly sum must add to 1410.

Premium Time offset - Weekly Premium Time (PT) computations shall be made against the non-adjusted split HPW, e.g. max Primary (App. C) use of PT would be 1055 HPW x 20% = 211 PT hours. Any adjusted increase (as above) to the HPW split will count against the PT request the government may make for that week, i.e. if the government schedules as case 1, above, the 71 hours added to Primary (App. C) are subtracted from the allowable 20% PT for that week. 211 possible PT hours - 71 added hours from the "pool" = 140 PT hours allowed that week. The case 1 split PT for Advanced (App. D) would be unaffected (71 PT hours), but the government, at this time, can conceive of no scenario where it would shift weekly HPW out of a curriculum but then add PT. As always, the contractor can agree to provide PT at levels above what is required, if able.

Hourly Stepladder per Week*	HPW Splits	Min/Max HPW	Device Availability	Window of CI Operations **
1630	<u> </u>	Primary: 1204/1346		
1030	Advanced: 355	Advanced: 284/426	(16 hrs)	(17 hrs)
1560	Primary: 1160	Primary: 1080/1240	0600-2200 M-F	0530-2230 M-F
1300	Advanced: 400	Advanced: 320/480	(16 hrs)	(17 hrs)
1515	Primary: 1160	Primary: 1089/1231	0600-2200 M-F	0530-2230 M-F
1313	Advanced: 355	Advanced: 284/426	(16 hrs)	(17 hrs)
1465	Primary: 1160	Primary: 1099/1221	0600-2200 M-F	0530-2230 M-F
1403	Advanced: 305	Advanced: 244/366	(16 hrs)	(17 hrs)
1410	Primary: 1055	Primary: 984/1126	0600-2200 M-F	0530-2230 M-F
1410	Advanced: 355	Advanced: 284/426	(16 hrs)	(17 hrs)
1360	Primary: 1055	Primary: 994/1116	0600-2200 M-F	0530-2230 M-F
1300	Advanced: 305	Advanced: 244/366	(16 hrs)	(17 hrs)
1160	Primary: 1160		0600-2200 M-F	0530-2230 M-F
1100	Advanced: 0	IV/A	(16 hrs)	(17 hrs)

^{*} Hours of instruction per day will be an even distribution of weekly hours above to a five-day work week within the HPW split (either non-adjusted or adjusted), with up to 10% variation required. For example, if 500 is the instructional hours per week contracted for in the Primary/Intermediate (Appendix H) curriculum, the average hours per day would be 100. Given the maximum amount of variation allowed, the contractor may be required to instruct up to 110 hours on a given day in that curriculum (with anything over 110 being premium time). Also, a total of 500 hours cannot be exceeded for the week without use of premium time. In the event additional instruction hours are needed in excess of the exercised stepladder, the Government will utilize premium time.

** Window of CI Operations may be adjusted per Addendum B, paragraph 5.4. The Window of CI Operations may change during the course of the task order.

1.7 Government provided contractor administrative spaces.

CIS Scheduling Office Room 3	106
CIS Site Manager's Office Room 3	105
CIS STAN Officer's Office Room 3	109
CIS Instructor Lounge Office Room 3	111
BLDG 89	
CIS Scheduling Office Room 1	110
CIS Site Manager's Office Room 2	212
CIS STAN Officer's Office Room 2	208
CIS Instructor Lounge Office Room 2	213

2.0 INSTRUCTOR QUALIFICATIONS AND CERTIFICATIONS.

2.1 Qualifications. T-34C or T-6B Contract Instructor (CI) Qualifications:

- a. Must be, or have been a designated military pilot in any aircraft.
- b. A CI shall have a minimum of one tour in flight status, a minimum of one thousand (1000) flying hours, and a bachelor's degree.
- c. The contractor may request waivers from the Government regarding any of the above qualifications for an individual on a case by case basis. The COR through coordination with the GTO will decide whether to approve or disapprove such a request.
- 2.2 <u>Certifications</u>. A CI must successfully complete the T-34C NATOPS open book, closed book, and boldface exams. A CI must understand both the T-34C and the T-6B mission, crew procedures, appropriate Ground, Contact, Basic Instrument and Radio Instrument Precision Acrobatics, Form Flight Training Instructions. In order to qualify as a classroom instructor, the Contract Instructor Under Training must monitor one full course and then instruct two full courses while being monitored by a qualified CIS Ground School Instructor certified in that subject area. The contractor will coordinate with the GTO if the Contract Instructor Under Training wants to monitor an additional course before instructing the two full courses in order to be certified. The Contract Instructor Under Training will be monitored by a qualified representative of the Government whom will sign the instructor off as qualified. This Government representative can be a Wing STAN officer or the Wing Instructional Systems Specialist.

3.0 TRAINING.

- 3.1 <u>Initial Training.</u> The Government will provide the following training as necessary and applicable. Training may be provided in the following areas:
 - a. Standard Operating Procedures (SOPs);
 - b. Course Rules;
 - c. NATOPS;
 - d. Aircraft Systems;
 - e. Syllabus Standardization;
 - f. Grading Criteria;
 - g. Basic Simulator Operating Procedures (SOPs);
 - h. Flight Instructor Training Course (FITC);
 - i. TIMS Indoc for Instructors
- 3.2 <u>Annual Training requirements/Standardization Checks</u>. The contractor is responsible for maintaining currency of qualifications in accordance with (IAW) paragraph 4.6 of Addendum B (PWS).

4.0 REQUIREMENTS.

4.1 Instruct all simulator events listed in the Master Curriculum Guide (MCG) for the T-34C and the T-6B respectively. The contractor shall be responsible for teaching all sim events stated in each Curriculum Guide listed above.

Note: There are two models of simulator devices for Primary training at TRAWING 4, the T-34C and the T-6B. The differences are significant. However, both devices require only one instructor to run the devices. The government

will permit the contractor to qualify individual instructors in both devices as long as these instructors are able to maintain their qualifications and provide standardized procedures for either airframe when instructing in a given device.

4.2 Instruct the following classroom events broken out by MCG for the T-34C and the T-6B respectively.

T-34C MCG Events	Average	Duration of Each	Frequency
	Students Per Class	Class (HRS)	
SYSTEMS	18	24.5	1 per week
METEOROLOGY	18	11.0	1 per week
METEOROLOGY EXAM	18	1.5	1 per week
IFR ACADEMICS	18	40.0	1 per week
IFR EXAM	18	3.0	1 per week
RADIO INSTRUMENT CONCEPTS	18	2.0	1 per week
RADIO INSTRUMENT FLIGHT PROCEDURES I	18	11.0	1 per week
RADIO INSTRUMENT FLIGHT PROCEDURES II	18	3.0	1 per week
CREW RESOURCE MANAGEMENT	18	2.0	1 per week
SAFETY	18	2.0	1 per week

T-6B MCG Events	Average Students Per Class	Duration of Each Class	Frequency
INTRODUCTION TO OPERATING SYSTEMS	18	1.0	1 per week
HANDLING EMERGENCY PROCEDURES	18	0.9	1 per week
EMERGENCY PROCEDURES REVIEW	18	2.0	1 per week
INTRODUCTION TO T-6B SYSTEMS	18	1.0	1 per week
AIRCRAFT SYSTEMS TOUR	18	1.5	1 per week
SYSTEMS REVIEW	18	1.9	1 per week
SYSTEMS REVIEW 2	18	3.5	1 per week
T-6B COCKPIT FAMILIARIZATION 1	18	1.0	1 per week
ELECTRICS AND FUEL REVIEW	18	1.4	1 per week
PROPULSION REVIEW	18	1.5	1 per week
T-6B COCKPIT FAMILIARIZATION 2	18	1.0	1 per week
SYSTEMS REVIEW 3	18	2.0	1 per week
CONTACT REVIEW 1	18	2.0	1 per week
BASIC INSTRUMENTS REVIEW	18	1.0	1 per week
ADVANCED INSTRUMENT REVIEW	18	1.0	1 per week
INSTRUMENTS REVIEW	18	1.5	1 per week
INSTRUMENTS REVIEW 2	18	2.5	1 per week
INSTRUMENTS REVIEW 3	18	2.5	1 per week
INSTRUMENTS REVIEW 4	18	2.0	1 per week
METEOROLOGY (B)	18	3.0	1 per week
IFR NAVIGATION REVIEW	18	3.0	1 per week
IFR MISSION PLANNING LAB	18	3.0	1 per week
IFR MISSION PLANNING LAB 2	18	2.0	1 per week
VFR NAVIGATION REVIEW	18	1.8	1 per week

VFR NAVIGATION PLANNING LAB	18	2.0	1 per week
LOW-LEVEL PLANNING LAB	18	3.0	1 per week
AVIATION SAFETY PROGRAM	18	1.0	1 per week
WHEELS WATCH	18	2.0	1 per week
CREW RESOURCE MANAGEMENT	18	2.0	1 per week
CURRICULUM BRIEF (JPPT)	18	2.0	1 per week

OTHER EVENTS	Average Students Per Class	Duration of Each Class	Frequency
FLIGHT INSTRUCTOR TRAINING COURSE (FITC)	10	24.0	1 per month
ANNUAL INSTRUMENT REFRESHER	20	4.0	2 per month

NOTE: Contract instructors may be assigned to instruct additional courses for either platform curriculum as identified by the Wing GTO, approved by CNATRA N7 and accepted by the contractor.

 ${\tt NOTE:}$ Instructors and students both attend the same course, so both MCGs apply here.

- 4.3 Provide Instructor(s) for the AEC, as required, during the normal operating hours listed in paragraph 1.3.1. It is the contractor's responsibility to be available to answer questions and to assist the students should they have problems with the content of the ICW, the functionality of the lessons, or the student management system. All curriculums are supported in the same LRC. Students are allowed to come and go freely from the LRC and to complete their assigned ICW courseware at their own pace.
- ** The T-34C Primary Systems Course, once a week for three and one-half (3%) days, max class size is twenty (20) students.
- ** The T-6B Primary Systems Course, commencing once a week and carrying over into the second week, with a max class size of twenty (20) Students.

4.4 Student Training Material.

a. All Instructor Lecture guides	available at CCC or
	Training Office
b. NATOPS/PCL	available at Book Issue
c. TW-4 In Flight guides	available at Book Issue
d. TW-4 SOP	available at Book Issue
e. All Flight Training Instructions (FTIs)	available at Book Issue
and Student Workbooks	

Note: The CI is responsible for ensuring that the content of instruction he provides is appropriate to all current and implemented instructional materials and CNATRA Instructions/Notices. All instructional material is distributed from the wing via the training department. The Wing STAN division normally will be tasked with making sure the contractor has received the latest training materials prior to their implementation.

- 4.5 <u>CIS Platform Specific Primary Responsibilities.</u> Refer to Addendum B, paragraph 4.1.1.
- 4.6 CIS Platform Specific Additional Support Responsibilities. All of Addendum B paragraph 4.1.3 applies.
- 4.7 <u>CIS Platform Specific Collateral Responsibilities</u>. Refer to Addendum B, paragraph 4.1.4.
- 4.8 CIS Scheduling Technical/Training Data. All early Ground School lectures are scheduled by the Wing Ground Training Officer (GTO) or his designee and sent to the contractor's scheduling desk. The Wing Ground Training Officer is responsible to oversee both the weekly proposed schedule and the daily CIS tasking by the squadrons under the wing for Simulators and post Ground School Lectures. Wing GTO or designee also assigns or approves classroom spaces for all -pre and post Ground School lectures taught by the contractor and conducted in the schoolhouse. Class dates are tentatively determined six months in advance, however minor changes may occur. Ground School calendars are sent out 4-5 days before the beginning of a new class. The duration of Ground School is normally Two (1 to 3) weeks dependent on the airframe. The first three weeks include the CPT simulator events. Squadrons submit proposed weekly simulator and ground school course requirements taught by CIS contract personnel to the Wing GTO who in turn reviews them. If the schedule exceeds the stepladder hours within this contract, the GTO via the COR will seek funding in the form of Premium Time from CNATRA. The Wing GTO will only intervene on the squadron's daily simulator schedule if there is an unforeseen issue with available funding or if the squadron's scheduling policy is in conflict with the CIS or COMS contract limitations, MCG or Wing SOP. Simulators event numbers are hard scheduled at 1500 the day prior to the event.
- 5.0 <u>CIS Scheduling Authority</u>. The squadron's designated officer(s) who is appointed by the squadron's Commanding Officer and has the authority to develop and approve the schedule (ground/ simulator/flights).